

ABSTRACT OF THE DISCLOSURE

A column select line YS1 can be enabled at the same time as the enabling of a word line. Write data is written from an I/O gate into a selected data line. An adjacent unselected
5 sense amplifier reads data from memory cells. A source node of a cross-coupled sense amplifier connected to each data line pair is divided for each column select line, thereby to prevent a write-selected cross-coupled amplifier from driving the source node. In the write operation, data can be written at a
10 high speed. On the other hand, it becomes possible to prevent a write-sense amplifier from driving the source node. Therefore, adjacent sense amplifiers can achieve stable read operation without being affected from the write-sense amplifier.